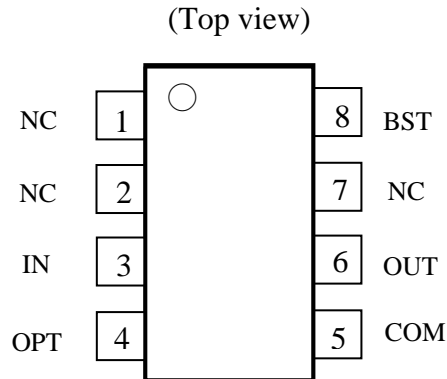




### Pin descriptions



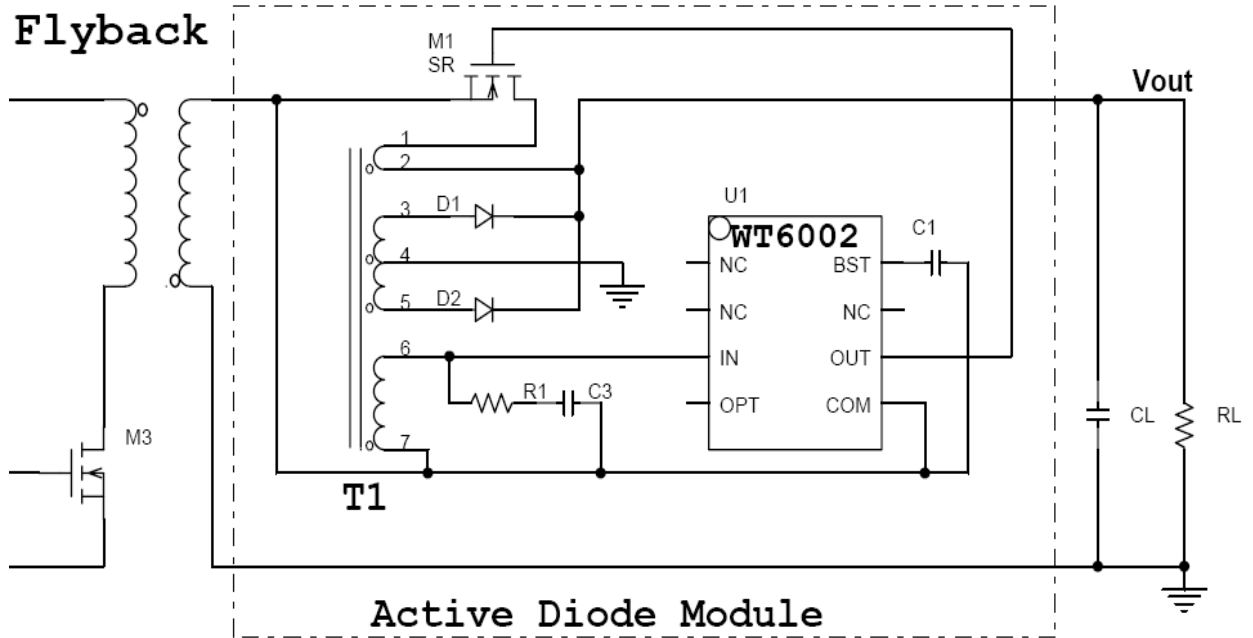
Pin	Symbol	Description
3	<b>IN</b>	IC input. When IN is high, OUT is high.
4	<b>OPT</b>	If necessary, a capacitor (recommend 100pf) can be connected from OPT to COM to filter out input noise.
5	<b>COM</b>	Common reference pin.
6	<b>OUT</b>	IC output pin. Provide gate driving voltage for the freewheeling MOSFET.
8	<b>BST</b>	A 220nf capacitor should be connected from BST to COM.

### Application circuit

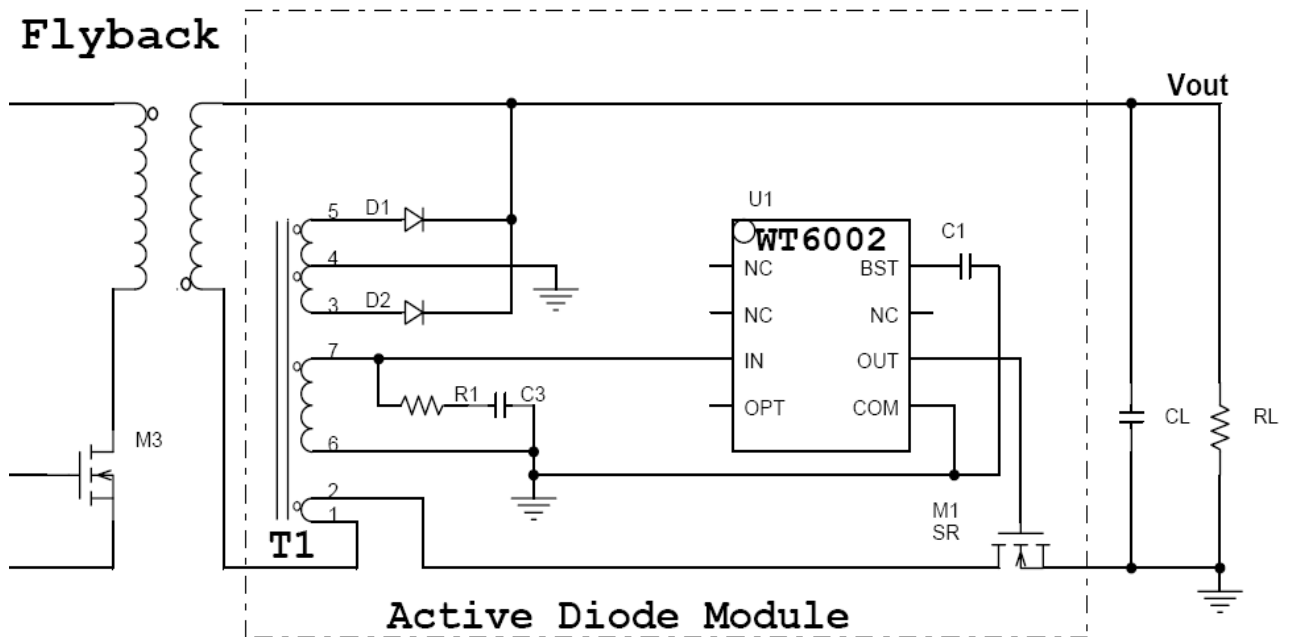
There is an external small toroid transformer used to sense current and provide driving signal for WT6002 chip.



**I. SR in high side**



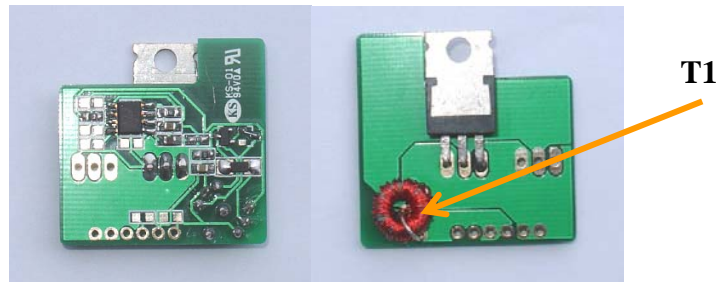
**II. SR in low side**





**Top View**

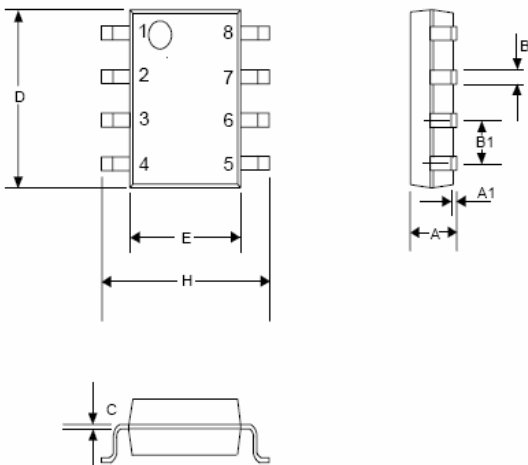
**Bottom View**



**The Active Diode Module**

Item	Description	Part number
T <sub>1</sub>	Toroid transformer	
	W1 : 1 turn (coupling coeff K 0.9 – 1)	
	W2 : 20 turns	
	W3 : 20 turns	
	W4 : 20 turns	
M <sub>1</sub>	Wide variety of Power MOSFET	IRF4710
D <sub>1</sub>	Small signal diode	BAS16
D <sub>2</sub>	Schottky diode	SD1004
C <sub>1</sub>	Capacitor, 220nF	
C <sub>3</sub>	Capacitor, 3.3nF	
R <sub>1</sub>	510ohm, adjustable if necessary	

**Outline Drawing SOP-8**



DIM <sup>N</sup>	DIMENSIONS			
	INCHES		MM	
	MIN	MAX	MIN	MAX
A	0.0578	0.0681	1.47	1.73
A1	0.0040	0.0087	0.10	0.22
B	0.0138	0.0197	0.35	0.50
B1	0.050 BSC		1.27 BSC	
C	0.0071	0.0098	0.18	0.25
D	0.1897	0.1940	4.82	4.93
H	0.2299	0.2417	5.84	6.14
E	0.1500	0.1559	3.81	3.96